

Luca Ridolfi

List of Publications by Year in descending order

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272
papers

13,599
citations

25034

57
h-index

28297

105
g-index

277
all docs

277
docs citations

277
times ranked

10661
citing authors

#	ARTICLE	IF	CITATIONS
1	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. <i>Advances in Water Resources</i> , 2001, 24, 707-723.	3.8	742
2	Hyporheic flow and transport processes: Mechanisms, models, and biogeochemical implications. <i>Reviews of Geophysics</i> , 2014, 52, 603-679.	23.0	642
3	The Effect of Vegetation Density on Canopy Sub-Layer Turbulence. <i>Boundary-Layer Meteorology</i> , 2004, 111, 565-587.	2.3	550
4	Probabilistic modelling of water balance at a point: the role of climate, soil and vegetation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1999, 455, 3789-3805.	2.1	482
5	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. <i>Advances in Water Resources</i> , 2001, 24, 725-744.	3.8	421
6	On the spatial and temporal links between vegetation, climate, and soil moisture. <i>Water Resources Research</i> , 1999, 35, 3709-3722.	4.2	314
7	Feeding humanity through global food trade. <i>Earth's Future</i> , 2014, 2, 458-469.	6.3	300
8	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. <i>Advances in Water Resources</i> , 2001, 24, 695-705.	3.8	275
9	Mathematical models of vegetation pattern formation in ecohydrology. <i>Reviews of Geophysics</i> , 2009, 47, .	23.0	244
10	Ecohydrology of water-controlled ecosystems. <i>Advances in Water Resources</i> , 2002, 25, 1335-1348.	3.8	242
11	Nutrient cycling in bedform induced hyporheic zones. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 84, 47-61.	3.9	191
12	MODELING THE INTERACTIONS BETWEEN RIVER MORPHODYNAMICS AND RIPARIAN VEGETATION. <i>Reviews of Geophysics</i> , 2013, 51, 379-414.	23.0	186
13	Hierarchy of models for meandering rivers and related morphodynamic processes. <i>Reviews of Geophysics</i> , 2007, 45, .	23.0	180
14	Significance of the riparian vegetation dynamics on meandering river morphodynamics. <i>Water Resources Research</i> , 2007, 43, .	4.2	170
15	A review of nature-based solutions for greywater treatment: Applications, hydraulic design, and environmental benefits. <i>Science of the Total Environment</i> , 2020, 711, 134731.	8.0	168
16	Sinuosity-driven hyporheic exchange in meandering rivers. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	4.0	159
17	Nonlinear analysis of river flow time sequences. <i>Water Resources Research</i> , 1997, 33, 1353-1367.	4.2	157
18	Noise-induced stability in dryland plant ecosystems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 10819-10822.	7.1	150

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19	A Probabilistic Analysis of Fire-Induced Tree-Grass Coexistence in Savannas. <i>American Naturalist</i> , 2006, 167, E79-E87.	2.1	139
20	Biogeochemical zonation due to intrameander hyporheic flow. <i>Water Resources Research</i> , 2010, 46, .	4.2	136
21	Preferential states of seasonal soil moisture: The impact of climate fluctuations. <i>Water Resources Research</i> , 2000, 36, 2209-2219.	4.2	132
22	Bedform-induced hyporheic exchange with unsteady flows. <i>Advances in Water Resources</i> , 2007, 30, 148-156.	3.8	132
23	On the long-term behavior of meandering rivers. <i>Water Resources Research</i> , 2005, 41, .	4.2	120
24	An analytical model to relate the vertical root distribution to climate and soil properties. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	4.0	119
25	Global virtual water trade and the hydrological cycle: patterns, drivers, and socio-environmental impacts. <i>Environmental Research Letters</i> , 2019, 14, 053001.	5.2	118
26	Turbulent boundary layers over permeable walls: scaling and near-wall structure. <i>Journal of Fluid Mechanics</i> , 2011, 687, 141-170.	3.4	116
27	Recent History and Geography of Virtual Water Trade. <i>PLoS ONE</i> , 2013, 8, e55825.	2.5	115
28	A continuous time random walk approach to the stream transport of solutes. <i>Water Resources Research</i> , 2007, 43, .	4.2	110
29	Challenges in humid land ecohydrology: Interactions of water table and unsaturated zone with climate, soil, and vegetation. <i>Water Resources Research</i> , 2007, 43, .	4.2	109
30	Ecohydrology of Terrestrial Ecosystems. <i>BioScience</i> , 2010, 60, 898-907.	4.9	109
31	Drivers of the virtual water trade. <i>Water Resources Research</i> , 2014, 50, 17-28.	4.2	109
32	Riparian vegetation distribution induced by river flow variability: A stochastic approach. <i>Water Resources Research</i> , 2006, 42, .	4.2	108
33	Reduction of the hyporheic zone volume due to the stream-aquifer interaction. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	107
34	Significance of cutoff in meandering river dynamics. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	95
35	Effect of vegetation-water table feedbacks on the stability and resilience of plant ecosystems. <i>Water Resources Research</i> , 2006, 42, .	4.2	94
36	Can diversity in root architecture explain plant water use efficiency? A modeling study. <i>Ecological Modelling</i> , 2015, 312, 200-210.	2.5	94

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37	Multivariate nonlinear prediction of river flows. <i>Journal of Hydrology</i> , 2001, 248, 109-122.	5.4	93
38	Stochastic soil moisture dynamics along a hillslope. <i>Journal of Hydrology</i> , 2003, 272, 264-275.	5.4	91
39	Global sensitivity of high-resolution estimates of crop water footprint. <i>Water Resources Research</i> , 2015, 51, 8257-8272.	4.2	91
40	Global Spatio-Temporal Patterns in Human Migration: A Complex Network Perspective. <i>PLoS ONE</i> , 2013, 8, e53723.	2.5	90
41	Tree-grass coexistence in Savannas: The role of spatial dynamics and climate fluctuations. <i>Geophysical Research Letters</i> , 1999, 26, 247-250.	4.0	84
42	Does globalization of water reduce societal resilience to drought?. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	83
43	Fuzzy Approach for Analysis of Pipe Networks. <i>Journal of Hydraulic Engineering</i> , 2002, 128, 93-101.	1.5	80
44	Ecohydrology of groundwater-dependent ecosystems: 1. Stochastic water table dynamics. <i>Water Resources Research</i> , 2009, 45, .	4.2	80
45	Effect of river flow fluctuations on riparian vegetation dynamics: Processes and models. <i>Advances in Water Resources</i> , 2017, 110, 29-50.	3.8	80
46	On the temporal variability of the virtual water network. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	78
47	New Modularity-Based Approach to Segmentation of Water Distribution Networks. <i>Journal of Hydraulic Engineering</i> , 2014, 140, .	1.5	78
48	Fertility Island Formation and Evolution in Dryland Ecosystems. <i>Ecology and Society</i> , 2008, 13, .	2.3	75
49	Intra-meander hyporheic flow in alluvial rivers. <i>Water Resources Research</i> , 2008, 44, .	4.2	72
50	Intensive or extensive use of soil moisture: Plant strategies to cope with stochastic water availability. <i>Geophysical Research Letters</i> , 2001, 28, 4495-4497.	4.0	68
51	Global effects of local food-production crises: a virtual water perspective. <i>Scientific Reports</i> , 2016, 6, 18803.	3.3	68
52	Transient cerebral hypoperfusion and hypertensive events during atrial fibrillation: a plausible mechanism for cognitive impairment. <i>Scientific Reports</i> , 2016, 6, 28635.	3.3	68
53	Soil moisture and plant stress dynamics along the Kalahari precipitation gradient. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	63
54	Modelling river and riparian vegetation interactions and related importance for sustainable ecosystem management. <i>Aquatic Sciences</i> , 2009, 71, 266-278.	1.5	63

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55	Modeling the impact of river damming on riparian vegetation. <i>Journal of Hydrology</i> , 2011, 396, 302-312.	5.4	62
56	Quantifying the impact of groundwater discharge on the surface–subsurface exchange. <i>Hydrological Processes</i> , 2009, 23, 2108-2116.	2.6	60
57	Water footprint of a large-sized food company: The case of Barilla pasta production. <i>Water Resources and Industry</i> , 2013, 1-2, 7-24.	3.9	59
58	A comparison of nonlinear flood forecasting methods. <i>Water Resources Research</i> , 2003, 39, .	4.2	57
59	Climate Dynamics: A Network-Based Approach for the Analysis of Global Precipitation. <i>PLoS ONE</i> , 2013, 8, e71129.	2.5	57
60	Mean first passage times of processes driven by white shot noise. <i>Physical Review E</i> , 2001, 63, 036105.	2.1	56
61	CLUES TO THE EXISTENCE OF DETERMINISTIC CHAOS IN RIVER FLOW. <i>International Journal of Modern Physics B</i> , 1996, 10, 1821-1862.	2.0	55
62	Biofilm–induced bioclogging produces sharp interfaces in hyporheic flow, redox conditions, and microbial community structure. <i>Geophysical Research Letters</i> , 2017, 44, 4917-4925.	4.0	55
63	Vegetation patterns induced by random climate fluctuations. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	53
64	A Fast Track approach to deal with the temporal dimension of crop water footprint. <i>Environmental Research Letters</i> , 2017, 12, 074010.	5.2	53
65	Nonlinear analysis of the geometry of meandering rivers. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	52
66	Influence of river meandering dynamics on riparian vegetation pattern formation. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	52
67	Estimation of the dispersion coefficient in rivers with riparian vegetation. <i>Advances in Water Resources</i> , 2009, 32, 78-87.	3.8	52
68	Analysis of the small-scale structure of turbulence on smooth and rough walls. <i>Physics of Fluids</i> , 2003, 15, 35-46.	4.0	51
69	A flow resistance model for assessing the impact of vegetation on flood routing mechanics. <i>Water Resources Research</i> , 2011, 47, .	4.2	50
70	Patterns as indicators of productivity enhancement by facilitation and competition in dryland vegetation. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	49
71	Ecohydrology of groundwater–dependent ecosystems: 2. Stochastic soil moisture dynamics. <i>Water Resources Research</i> , 2009, 45, .	4.2	49
72	An experimental contribution to near-wall measurements by means of a special laser Doppler anemometry technique. <i>Experiments in Fluids</i> , 2002, 32, 366-375.	2.4	48

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73	Small-scale permeability heterogeneity has negligible effects on nutrient cycling in streambeds. <i>Geophysical Research Letters</i> , 2013, 40, 1118-1122.	4.0	48
74	Measuring economic water scarcity in agriculture: a cross-country empirical investigation. <i>Environmental Science and Policy</i> , 2020, 114, 73-85.	4.9	48
75	National water, food, and trade modeling framework: The case of Egypt. <i>Science of the Total Environment</i> , 2018, 639, 485-496.	8.0	47
76	Tailoring Centrality Metrics for Water Distribution Networks. <i>Water Resources Research</i> , 2019, 55, 2348-2369.	4.2	47
77	Shock transmission in the International Food Trade Network. <i>PLoS ONE</i> , 2018, 13, e0200639.	2.5	46
78	Interplay among river meandering, discharge stochasticity and riparian vegetation. <i>Journal of Hydrology</i> , 2010, 382, 138-144.	5.4	44
79	Spatial organization and drivers of the virtual water trade: a community-structure analysis. <i>Environmental Research Letters</i> , 2012, 7, 034007.	5.2	44
80	Vegetation dynamics induced by phreatophyte-aquifer interactions. <i>Journal of Theoretical Biology</i> , 2007, 248, 301-310.	1.7	43
81	A novel infrastructure modularity index for the segmentation of water distribution networks. <i>Water Resources Research</i> , 2014, 50, 7648-7661.	4.2	43
82	To trade or not to trade: Link prediction in the virtual water network. <i>Advances in Water Resources</i> , 2017, 110, 528-537.	3.8	43
83	Solution of nonlinear initial-boundary value problems by sinc collocation-interpolation methods. <i>Computers and Mathematics With Applications</i> , 1995, 29, 15-28.	2.7	42
84	Cardiovascular deconditioning during long-term spaceflight through multiscale modeling. <i>Npj Microgravity</i> , 2020, 6, 27.	3.7	42
85	Source identification in river pollution problems: A geostatistical approach. <i>Water Resources Research</i> , 2005, 41, .	4.2	41
86	An experimental investigation of turbulent flows over a hilly surface. <i>Physics of Fluids</i> , 2007, 19, 036601.	4.0	41
87	Effect of rainfall interannual variability on the stability and resilience of dryland plant ecosystems. <i>Water Resources Research</i> , 2007, 43, .	4.2	41
88	Coupled stochastic dynamics of water table and soil moisture in bare soil conditions. <i>Water Resources Research</i> , 2008, 44, .	4.2	41
89	The signature of randomness in riparian plant root distributions. <i>Geophysical Research Letters</i> , 2015, 42, 7098-7106.	4.0	41
90	Network structure classification and features of water distribution systems. <i>Water Resources Research</i> , 2017, 53, 3407-3423.	4.2	41

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91	Higher ventricular rate during atrial fibrillation relates to increased cerebral hypoperfusions and hypertensive events. <i>Scientific Reports</i> , 2019, 9, 3779.	3.3	41
92	On the seasonal dynamics of mean soil moisture. <i>Journal of Geophysical Research</i> , 2002, 107, ACL 8-1.	3.3	40
93	Unsteady overland flow on flat surfaces induced by spatial permeability contrasts. <i>Advances in Water Resources</i> , 2011, 34, 1049-1058.	3.8	39
94	Modeling hyporheic exchange with unsteady stream discharge and bedform dynamics. <i>Water Resources Research</i> , 2013, 49, 4089-4099.	4.2	39
95	Duration and frequency of water stress in vegetation: An analytical model. <i>Water Resources Research</i> , 2000, 36, 2297-2307.	4.2	38
96	Local and global perspectives on the virtual water trade. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 1205-1215.	4.9	38
97	Impact of atrial fibrillation on the cardiovascular system through a lumped-parameter approach. <i>Medical and Biological Engineering and Computing</i> , 2014, 52, 905-920.	2.8	38
98	Biodiversity enhancement induced by environmental noise. <i>Journal of Theoretical Biology</i> , 2008, 255, 332-337.	1.7	37
99	Impact of watershed topography on hyporheic exchange. <i>Advances in Water Resources</i> , 2016, 94, 400-411.	3.8	37
100	Visibility graph analysis of wall turbulence time-series. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018, 382, 1-11.	2.1	37
101	A review on turbulent and vortical flow analyses via complex networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2021, 563, 125476.	2.6	37
102	Impact of climate variability on the vegetation water stress. <i>Journal of Geophysical Research</i> , 2000, 105, 18013-18025.	3.3	36
103	Effect of streamflow stochasticity on bedform-driven hyporheic exchange. <i>Advances in Water Resources</i> , 2010, 33, 1367-1374.	3.8	35
104	Interaction between large and small scales in the canopy sublayer. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	33
105	Water disinfection by orifice-induced hydrodynamic cavitation. <i>Ultrasonics Sonochemistry</i> , 2020, 60, 104740.	8.2	33
106	Stochastic modelling of DO and BOD components in a stream with random inputs. <i>Advances in Water Resources</i> , 2006, 29, 1341-1350.	3.8	32
107	Gravity-driven water exchange between streams and hyporheic zones. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	32
108	Modelling the response of laboratory horizontal flow constructed wetlands to unsteady organic loads with HYDRUS-CWM1. <i>Ecological Engineering</i> , 2014, 68, 209-213.	3.6	32

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109	Role of discharge variability on pseudomeandering channel morphodynamics: Results from laboratory experiments. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	31
110	Water and solute exchange through flat streambeds induced by large turbulent eddies. <i>Journal of Hydrology</i> , 2011, 402, 290-296.	5.4	31
111	Complex Networks Unveiling Spatial Patterns in Turbulence. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2016, 26, 1650223.	1.7	31
112	A change of perspective in network centrality. <i>Scientific Reports</i> , 2018, 8, 15269.	3.3	31
113	Noise-induced vegetation patterns in fire-prone savannas. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	30
114	Flood reduction as an ecosystem service of constructed wetlands for combined sewer overflow. <i>Journal of Hydrology</i> , 2018, 560, 150-159.	5.4	30
115	Detecting determinism and nonlinearity in river-flow time series. <i>Hydrological Sciences Journal</i> , 2003, 48, 763-780.	2.6	29
116	Ice ripple formation at large Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2012, 694, 225-251.	3.4	29
117	Embedding the intrinsic relevance of vertices in network analysis: the case of centrality metrics. <i>Scientific Reports</i> , 2020, 10, 3297.	3.3	29
118	On the scaling of large-scale structures in smooth-bed turbulent open-channel flows. <i>Journal of Fluid Mechanics</i> , 2020, 889, .	3.4	28
119	Turbulent friction in flows over permeable walls. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	27
120	Influence of weak trends on exceedance probability. <i>Stochastic Hydrology & Hydraulics</i> , 1998, 12, 1-14.	0.5	26
121	Sinc collocation-interpolation method for the simulation of nonlinear waves. <i>Computers and Mathematics With Applications</i> , 2003, 46, 1443-1453.	2.7	26
122	Numerical and experimental characterization of a novel modular passive micromixer. <i>Biomedical Microdevices</i> , 2012, 14, 849-862.	2.8	25
123	Community detection as a tool for complex pipe network clustering. <i>Europhysics Letters</i> , 2013, 103, 48001.	2.0	25
124	Modelling and Subject-Specific Validation of the Heart-Arterial Tree System. <i>Annals of Biomedical Engineering</i> , 2015, 43, 222-237.	2.5	25
125	Stochastic dynamics of BOD in a stream with random inputs. <i>Advances in Water Resources</i> , 2004, 27, 943-952.	3.8	24
126	From time-series to complex networks: Application to the cerebrovascular flow patterns in atrial fibrillation. <i>Chaos</i> , 2017, 27, 093107.	2.5	24

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127	Compensatory Effect between Aortic Stiffening and Remodelling during Ageing. PLoS ONE, 2015, 10, e0139211.	2.5	24
128	Stochastic description of water table fluctuations in wetlands. Geophysical Research Letters, 2010, 37, .	4.0	23
129	A phenomenological model to describe turbulent friction in permeable wall flows. Geophysical Research Letters, 2012, 39, .	4.0	23
130	Hydrodynamic-Driven Stability Analysis of Morphological Patterns on Stalactites and Implications for Cave Paleoflow Reconstructions. Physical Review Letters, 2012, 108, 238501.	7.8	23
131	Mean root depth estimation at landslide slopes. Ecological Engineering, 2014, 69, 118-125.	3.6	23
132	Noise-driven cooperative dynamics between vegetation and topography in riparian zones. Geophysical Research Letters, 2015, 42, 8021-8030.	4.0	23
133	Lagrangian network analysis of turbulent mixing. Journal of Fluid Mechanics, 2019, 865, 546-562.	3.4	22
134	On the Trajectory Method for the Reconstruction of Differential Equations from Time Series. Nonlinear Dynamics, 2000, 23, 13-33.	5.2	21
135	On the use of neural networks for dendroclimatic reconstructions. Geophysical Research Letters, 2000, 27, 791-794.	4.0	21
136	The influence of stochastic soil moisture dynamics on gaseous emissions of NO, N2O, and N2. Hydrological Sciences Journal, 2003, 48, 781-798.	2.6	21
137	Probabilistic modeling of nitrogen and carbon dynamics in water-limited ecosystems. Ecological Modelling, 2004, 179, 205-219.	2.5	21
138	Probabilistic nonlinear prediction of river flows. Water Resources Research, 2005, 41, .	4.2	21
139	A stochastic process for the interannual snow storage and melting dynamics. Journal of Geophysical Research, 2007, 112, .	3.3	21
140	Noise-induced phenomena in riparian vegetation dynamics. Geophysical Research Letters, 2007, 34, .	4.0	21
141	Alteration of cerebrovascular haemodynamic patterns due to atrial fibrillation: an <i>in silico</i> investigation. Journal of the Royal Society Interface, 2017, 14, 20170180.	3.4	21
142	Impaired coronary blood flow at higher heart rates during atrial fibrillation: Investigation via multiscale modelling. Computer Methods and Programs in Biomedicine, 2019, 175, 95-102.	4.7	21
143	Propagation of toxic substances in the urban atmosphere: A complex network perspective. Atmospheric Environment, 2019, 198, 291-301.	4.1	21
144	Experimental investigation of vertical turbulent transport of a passive scalar in a boundary layer: Statistics and visibility graph analysis. Physical Review Fluids, 2019, 4, .	2.5	21

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145	Rate Control Management of Atrial Fibrillation: May a Mathematical Model Suggest an Ideal Heart Rate?. PLoS ONE, 2015, 10, e0119868.	2.5	21
146	Can microbial fuel cells be an effective mitigation strategy for methane emissions from paddy fields?. Ecological Engineering, 2013, 60, 167-171.	3.6	20
147	Multiscale mathematical modeling vs. the generalized transfer function approach for aortic pressure estimation: a comparison with invasive data. Hypertension Research, 2019, 42, 690-698.	2.7	20
148	Street canyon ventilation: Combined effect of cross-section geometry and wall heating. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 2347-2367.	2.7	20
149	Compliance with EAT's Lancet dietary guidelines would reduce global water footprint but increase it for 40% of the world population. Nature Food, 2022, 3, 143-151.	14.0	20
150	Green's Function of the Linearized de Saint-Venant Equations. Journal of Engineering Mechanics - ASCE, 2006, 132, 125-132.	2.9	19
151	Flume Experiments on Turbulent Flows Across Gaps of Permeable and Impermeable Boundaries. Boundary-Layer Meteorology, 2013, 147, 21-39.	2.3	19
152	Inter-species competition-facilitation in stochastic riparian vegetation dynamics. Journal of Theoretical Biology, 2013, 318, 13-21.	1.7	18
153	Effect of water table fluctuations on phreatophytic root distribution. Journal of Theoretical Biology, 2014, 360, 102-108.	1.7	18
154	Fluid dynamics of heart valves during atrial fibrillation: a lumped parameter-based approach. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1060-1068.	1.6	18
155	Increased beat-to-beat variability of cerebral microcirculatory perfusion during atrial fibrillation: a near-infrared spectroscopy study. Europeace, 2021, 23, 1219-1226.	1.7	18
156	A Computational Study on the Relation between Resting Heart Rate and Atrial Fibrillation Hemodynamics under Exercise. PLoS ONE, 2017, 12, e0169967.	2.5	18
157	Detecting nonlinearity in time series driven by non-Gaussian noise: the case of river flows. Nonlinear Processes in Geophysics, 2004, 11, 463-470.	1.3	17
158	Modal versus nonmodal linear stability analysis of river dunes. Physics of Fluids, 2011, 23, .	4.0	17
159	Spatial pattern formation induced by Gaussian white noise. Mathematical Biosciences, 2011, 229, 174-184.	1.9	17
160	The past and future of food stocks. Environmental Research Letters, 2016, 11, 035010.	5.2	17
161	Inequalities in the networks of virtual water flow. Eos, 2012, 93, 309-310.	0.1	16
162	General metrics for segmenting infrastructure networks. Journal of Hydroinformatics, 2015, 17, 505-517.	2.4	16

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163	Charting out the future agricultural trade and its impact on water resources. <i>Science of the Total Environment</i> , 2020, 714, 136626.	8.0	16
164	Long-term morphological river response to hydrological changes. <i>Advances in Water Resources</i> , 2011, 34, 1643-1655.	3.8	15
165	Bed evolution measurement with flowing water in morphodynamics experiments. <i>Earth Surface Processes and Landforms</i> , 2012, 37, 818-827.	2.5	15
166	Stochastic resonance and coherence resonance in groundwater-dependent plant ecosystems. <i>Journal of Theoretical Biology</i> , 2012, 293, 65-73.	1.7	15
167	On the convective-absolute nature of river bedform instabilities. <i>Physics of Fluids</i> , 2014, 26, .	4.0	15
168	Spatial characterization of turbulent channel flow via complex networks. <i>Physical Review E</i> , 2018, 98, 013107.	2.1	15
169	Large-to-small scale frequency modulation analysis in wall-bounded turbulence via visibility networks. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	3.4	15
170	Computational fluid dynamics modelling of left valvular heart diseases during atrial fibrillation. <i>PeerJ</i> , 2016, 4, e2240.	2.0	15
171	A Spatial Model for Soil-Atmosphere Interaction: Model Construction and Linear Stability Analysis. <i>Journal of Hydrometeorology</i> , 2000, 1, 61-74.	1.9	14
172	Convective nature of the planimetric instability in meandering river dynamics. <i>Physical Review E</i> , 2006, 73, 026311.	2.1	14
173	Nonnormality and transient behavior of the de Saint-Venant-Exner equations. <i>Water Resources Research</i> , 2009, 45, .	4.2	14
174	Transient growth induces unexpected deterministic spatial patterns in the Turing process. <i>Europhysics Letters</i> , 2011, 95, 18003.	2.0	14
175	A spectral approach for the stability analysis of turbulent open-channel flows over granular beds. <i>Theoretical and Computational Fluid Dynamics</i> , 2012, 26, 51-80.	2.2	14
176	On the influence of collinear surface waves on turbulence in smooth-bed open-channel flows. <i>Journal of Fluid Mechanics</i> , 2021, 924, .	3.4	14
177	Transport of reactive chemicals in sediment-laden streams. <i>Advances in Water Resources</i> , 2003, 26, 815-831.	3.8	13
178	Longitudinal dispersion in vegetated rivers with stochastic flows. <i>Advances in Water Resources</i> , 2010, 33, 562-571.	3.8	13
179	A shallow-water theory of river bedforms in supercritical conditions. <i>Physics of Fluids</i> , 2012, 24, .	4.0	13
180	Spatio-temporal stochastic resonance induces patterns in wetland vegetation dynamics. <i>Ecological Complexity</i> , 2012, 10, 93-101.	2.9	13

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181	Supraglacial channel inception: Modeling and processes. <i>Water Resources Research</i> , 2015, 51, 7044-7063.	4.2	13
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